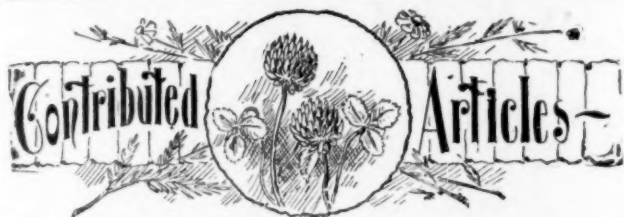


36th Year.

CHICAGO, ILL., JUNE 4, 1896.

No. 23



New Kind of Queen-Trap—Finding Queens.

BY C. DAVENPORT.

As mentioned in my last article, I will describe a trap that catches a queen, but does not prevent the drones from leaving or re-entering the hive. But before I do so, perhaps it would be of interest to some for me to explain how I came to think about making it.

I was in the yard one day last summer when a swarm issued from a box-hive. I was busy at the time, and as there was a trap attached to the hive, I did not pay any attention to them until soon after the swarm had all issued, when I stepped over to the hive and saw that the trap was out of place, and lacked about a quarter of an inch from being close up against the hive. I supposed, of course, that the queen had escaped, but upon looking closely I saw that she was still down in the lower part trying to get through the zinc in front.

Soon after, I made a number of traps 8 inches long, 3 thick, and as wide as the hives to which they were to be attached. The front end and the entire top, except $\frac{1}{4}$ inch next to the hive, was covered with ordinary queen-excluding zinc. The sides were made out of thin boards, and the bottoms of tin. On the inside, about $2\frac{1}{2}$ inches from the end next to the hive, a piece of zinc was fastened across this strip, which reaches clear across. The trap was made out of three pieces. The two end pieces were ordinary zinc but the center piece, which is about 5 inches long, is zinc, which will exclude drones, but allow queens to pass through. A wire cone of such a size and shape that it will entirely cover this center piece is attached to it in front, so that if a queen passes through this piece of drone-excluding zinc at any place, she will be in the wire cone, and if she follows the cone and passes out at the small hole in the end, she will be confined in the chamber in front instead of overhead, as in an ordinary trap.

Now, if I have made this description plain, the reader will understand that the trap, when attached to a hive, projects out in front, instead of up and down, and that there is a space $\frac{1}{4}$ inch wide clear across on the top of the trap next to the hive, which is not covered with zinc, but there is no space left at the sides.

Last summer I had three of these traps attached to hives from which swarms issued; in each case they caught the

queen. Two of these swarms were accompanied by laying queens; the other was an after-swarm, and I found three virgin queens in the trap. Another one was also discovered with the swarm; this one might not have gone through the cone into the chamber in front, or she may have done so, and then got through the zinc. I have had virgin queens escape in this way when using common traps.

Now, when one of these traps is attached to a hive when a swarm issues, of course there is nothing to prevent the queen from walking up the front of the hive and escaping through the open space there, but it seems that instead of doing so they go straight ahead, and when they meet with some obstruction in front, instead of turning back they try to get through it. Whether they will do so invariably remains to be seen.

One of these traps was also attached to a hive, the bees of which superseded their queen. While the trap was there this queen got out, mated, and returned all right. The only way I can account for this is, that a virgin queen, when she comes out to mate, does so in a more leisurely manner, and instead of rushing through the cone, escapes through the open space overhead.

When one of these traps is attached to a hive it is hardly any hindrance whatever to the bees, for they soon use the top for an alighting-board, and then pass through the open space into the hive. It bothers the drones some to get out, but it does not bother them any to re-enter the hive. If I had all frame hives, it is very little interest I would have in any kind of trap, for I much prefer clipped queens; and although I practice dividing, or artificial swarming mostly, with colonies that are in frame hives, I keep these queens clipped, for with me an artificial swarm sometimes tries to abscond.

It used to be a good deal of bother for me to find queens in populous colonies, sometimes, but it is not much now, for I can find a laying queen in an 8 or 10 frame hive with 4 or 5 minutes' work, no matter how populous the colony, or what kind of a queen it is; and although the method I practice has been described before, perhaps it might be of interest to some beginners for me to give it again.

As I remove the frames from the hives I look them over for the queen, and if she is not found readily (and with me it is seldom) the frames with the bees are all placed in an empty hive close by, or hung on a low rack made for this purpose. If there are many bees left in the hive, they are shaken out in front; an entrance-guard is now placed at the entrance, and the bees on the frames are all shaken off in front of the hive. As the bees on each comb are shaken off, the comb is placed back in the hive, and when all are in, the cover is put on, and the next hive containing a queen to be found is treated the same. If one has a number of queens to find, by the time the last hive has been gone over, the queens of the first hives

treated can be readily found in front of their hive among the few bees that have not gone in.

I have never as yet lost a queen by this method, but I will say for the benefit of beginners, that this method should not be practiced during cool weather in the spring, or late in the fall, after queens have stopped laying.

Southern Minnesota.



Benefits of a Foul Brood Law.

Read before the Wisconsin State Convention

BY N. E. FRANCE.

Perhaps this subject can as well be answered by answering some of the questions I so often hear. I am sorry to say there are too many keeping bees who seem to talk and act as if too wise to learn from our valuable bee papers or books. They ask, What is this disease? Is it contagious? Is it near us? Has any State a foul brood law?

Foul brood is a very fatal and contagious disease, doing its work by killing the bees in the grub or worm stage of life. As it takes only a few days from the egg to the hatched bee, you can see how short a time it would take to destroy the colony after once exposed. This dreaded disease became serious in Canada so that the industry seemed doomed; those wide-awake neighbors and members of the Ontario Bee-Keepers' Association could not be content to give up so valuable an industry, and on April 7, 1890, had a law passed providing for an inspector, and heavy fines to any one to sell or expose any diseased bees or appliances. Wm. McEvoy, as inspector, has so carefully and thoroughly done his duty that the disease can scarcely be found.

I am often asked, "How near is the disease to my beeyard?" As long as the disease is in this country, and no law to control it with our mail service carrying bees and supplies, I consider we are all in danger. Allow me to illustrate:

A bee-keeper told me he wanted a choice Italian queen, so sent to one of our Eastern States for it. The queen with a few bees came, and were introduced with the cage as instructed. He felt proud of his pretty queen, and after a time he opened the hive to find by some means the colony had foul brood. Not being the honey harvest season, the disease spread very fast, causing a loss of over 100 colonies.

California, for several years, has had a foul brood law, and their inspector (J. F. McIntyre) has done great good there, so that now that State is noted for her train loads of honey shipped to various places.

Colorado also has a foul brood law. Last winter Illinois and Minnesota, and at the same time I, as Wisconsin delegate, tried to get a foul brood law. Why did we fail to get it? Simply because the bee-keepers of the State did not do their duty. How careful we require by law a case of small-pox, or other contagious disease, to be quarantined and doctored. Likewise diseases among farm stock. Why not have a similar law to protect our bees? If you want such a law, you can have it, if you will only ask for it.

As delegate to appear before our legislature last winter, I soon learned that very few members of either House had been called on by bee-keepers of their district, and did not know one thing about the disease, or whether they wanted a law or not. I did all I could, but failed simply because I did not have backing. At least a dozen members of the legislature told me they would vote for the Bill if bee-men from their district would request it. A stitch in time, brother bee-keepers, will accomplish it.

I repeat, Do you want the protection of the law?

Platteville, Wis.



Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 364?

Enlargement of the Bee-Keepers' Union.

BY W. D. FRENCH.

Several correspondents request me to again set forth, in detail, the proposition bearing upon the subject of an enlargement of the Bee-Keepers' Union, wherein all bee-keepers may be benefited.

This subject, to me, seems of vital importance, and will, at no distant day, be carried into execution. The object of a union should be for the protection of all apiarists, not only those who may be harassed by malicious individuals, but extend aid to all who produce honey.

The proposition I desire to discuss, which tends to accomplish this feat, may appear to the minds of some to be beyond consummation; but when we consider the fact that all industries in our land have combined, either to rob or for protection, must we look upon each other with fear and trembling timidity, and allow others to combine upon our product, and with less capital? Where there is a determination there is a way. Those who keep bees, but do not produce honey, may be loath to combine; but the great producing class will join together, and form one vast association, not for the purpose of robbery, but to protect themselves from being robbed.

A person in his first experience will be advised to begin with a small number of colonies, and in a few years he may possess a large apiary; beginning with caution and care, acquiring knowledge and information, and, as time rolls on, he becomes well versed in the pursuit; and it may be true with reference to the marketing of our product by the formation of a protective bee-keepers' union. It would undoubtedly require two or three years to place such an organization in full and complete operation, although in the first year of its usefulness it would be heard, seen and felt.

I do not wish to be understood as advocating a scheme that would in any manner deprive a single member of the present Bee-Keepers' Union from any part or fraction of benefits to which he may now be entitled; my sole object in presenting this proposition is to enhance the value and elevate the pursuit which we follow, classifying our industry in the category of those that are honorable, legitimate and profitable.

There is not a person who dares take issue with me upon this subject, basing his argument on the impracticability of co-operation in the marketing of honey. I may be in error upon different points of my proposition, but I believe in the main it is the only solution to be arrived at.

To illustrate my views in detail, which I am again requested to present, I would first say that every State bee-keepers' association should inaugurate a system of warehouses in every city where it might be deemed necessary, or where honey is produced in large quantities, or in amounts sufficient to warrant it, and the same be the distributing point for said city and locality; each point of distribution, however, should not carry more than the consumption of said city, or district, and all surplus be shipped to the great head center to be located in Chicago, which would constitute the distributing point for America. It should be operated by the same system as at present, although necessitating and requiring the full time and attention of its manager.

A commission should be charged sufficiently large to meet all operating expenses, and to establish a fund in which to pay freight bills, advances on consignments, etc.; and eventually paying the producer his cash upon arrival. By the aid of what cash there is now in the treasury, and one dollar from each new member, a sufficient sum could be realized to establish and maintain a bureau of distribution in Chicago.

Should State associations be negligent in the matter of establishing warehouses in their respective States or cities, then the same should be performed by the Board of Trustees, or officers of the Union.

I have no desire to formulate a method for electing offi-

cers, or dealing with a constitution or by-laws, but simply to outline its general principles and predict its usefulness.

The article by Prof. Cook, bearing upon the subject of the California Bee-Keepers' Exchange, on page 81, speaks correctly of grievances manifested by the honey-producers of California, and the article produced. He says: "They see no reason why they should not have a voice in determining prices on their own product. Could they but work in concert, act as one man, something after the manner of the Standard Oil Company, then they could adjust prices of their honey according to the amount and cost of production."

I would like Prof. Cook to tell me how the Standard Oil Company could maintain their price on oil without the co-operation of at least a majority of producers. And, also, how could the California Bee-Keepers' Exchange maintain a fixed price upon their product without the co-operation of bee-keepers outside of their State?

It must be borne in mind that honey is not only produced in California, but in every other State, and to co-operate on the principle of the Standard Oil Company, it must extend throughout the United States. The California Bee-Keepers' Exchange cannot fix the price of honey in New York, Chicago or Boston. It can only stimulate the price at home.

It must be remembered also that citrus fruits are produced only in certain States, hence the advantage the Citrus Fruit Exchange must have over the Bee-Keepers' Exchange where the product of every State comes into competition.

It is to be hoped that every State will now organize something on the principle of the California Bee-Keepers' Exchange, and when that has been accomplished, a National organization will be sure to follow, which will be indispensable in order that the product of the bees be properly distributed, and a uniform price be maintained throughout the United States. In other words, it will be necessary for each State to combine under one general management. As time passes on in its various events, and people becoming more convinced of the necessity of organization, it is apparent that a system based upon such a method would be more easily consummated.

There cannot be a shadow of doubt against the consistency of a National combination, neither should there be any serious controversy over the manner in which it could be matured; but in order to complete its usefulness, and bring to bear the object sought, every State should be united.

Now that the first link has been welded, it is the duty of other States to act in like manner, and form one great and powerful chain that cannot be broken. When that has been accomplished, bee-keepers can justly feel their independence, and show the world their ability to regulate and dispose of their own product.

While it is true there are honest men in the commission business, it is safe to assert that bee-keepers can manipulate their own business satisfactorily to themselves, and by proper distribution, adjust their own product to the various points as desired. It is not the object of bee-keepers to corner the product of the bees, and compel the innocent consumer to pay an exorbitant price for the sweetest of all sweets, but to maintain a uniform price much in advance of what they now receive, without extra cost to those who buy for their own consumption.

I would respectfully urge every State bee-association to move in this matter, and when that has been accomplished, a new era will dawn upon those who follow the pursuit of bee-keeping.

Foster, Calif.



The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for \$1.10.

The Slotted Separator—Experiments.

BY B. TAYLOR.

In reply to a request, I give the following description of my handy separators:

They are made of two strips of wood $\frac{1}{8}$ inch thick. For $4\frac{1}{4}$ sections these strips are 2 inches wide; they are fastened together by cleats $4\frac{1}{4}$ long and $\frac{3}{4}$ by $\frac{1}{4}$. The cleats are nailed across the wide strips in four places, $4\frac{1}{4}$ inches apart, so the edges of the sections strike the cleats, leaving one-half bee-space in the separators. This brings the honey in the sections to within $\frac{1}{8}$ inch of the edge of the section, and the bees, for causes I will not try to explain here, will seal the honey smooth and level, right up to the wood of the sections, in a uniform, beautiful way that they never will do with plain-surface separators where the bee-space is all in the section.

The two 2-inch strips that make the finished separator, when cleated to $4\frac{1}{4}$ wide, leaves an open slot $\frac{1}{4}$ inch wide lengthwise, in the center of each separator; through these slots the bees can pass freely from section to section, right in the center of the super.

These separators can be used in any style of super. In the T super the edges are slotted where the T tins come, for these separators go clear to the top and bottom of the sections, leaving no chance for the bees to bulge the combs above and below the separators, as they often do with the old-style separators.

The question is often asked—Do not these thick separators occupy much space, and diminish the pounds of honey in a super? No, they increase the honey in any given sized super. They do lessen the number of sections in a super, but each section is enough heavier to more than make the difference, so there is a saving of four sections with their foundation in each super.

"But they are too costly," I hear some one say. They are in the final end cheaper than any thin wood separators, for but three of them are required in a 24-section super, and with care they will last a lifetime, and will help a novice to produce perfect-finished sections for shipping or show.

Dr. E. K. Jaques, of Crystal, Minn., exhibited two 24-section supers of honey at the Minnesota State Fair in 1895, which drew \$28 in three 1st Premiums for perfection in finish and shipping qualities.

EXPERIMENTS IN BEE-KEEPING.

In a recent number of the American Bee Journal I find the following paragraph, taken from the Farm, Stock and Home:

I am wintering some 40 colonies in two-story hives of 2,000 inches of comb space, and at least 50 pounds of honey per colony. I had intended to stop experimenting, but there are yet many unsettled things in bee-keeping, and I shall go on testing methods hereafter with more care than ever. I will set three large double hives, with their rich stores, on the summer stands, treat all as nearly alike as possible, and then keep a strict record of which gives the earliest and largest swarms, which class gives the most salable honey during the season, and then figure the comparative profit of each.

B. TAYLOR.

The editor copied the paragraph correctly, but the Farm, Stock and Home did not report me correctly. Where it reads, "I will set *three* large double hives," it should read, "I will set *these* large double hives," for I shall use all of them, and as many more of my small Handy hives of 1,000 inches of comb space, for the same purpose, viz.: which will under the same treatment, and in the same yard, give the most profitable results—hives of large or small size, in either comb or extracted honey? I will feed part of these colonies in both sizes of hives a few ounces of syrup each day without regard to their having a plenty of stores in the hives, to prove whether stimulative feeding pays.

I will run a part of these colonies for comb and part for

extracted honey, and note which gives the most dollars and cents. There are 38 colonies in two house-apiaries, part will be run for comb and part for extracted honey.

I will also make careful comparison between the house and open yard, as to greatest profit. The colonies I am using are the best lot of bees I ever owned—rich in bees and stores—and I expect to settle facts by proved conclusions, and not guesses based on prejudice.

Mr. Editor, you perhaps remember that I, last fall, reported my bees to be in fine condition for winter—plenty of stores and plenty of young bees. Well, out of 113 colonies I lost two queenless ones. I put them out April 12, and they were carrying pollen in one hour, and on April 14 they were working like in midsummer.

Forestville, Minn.



Transferring—Something for Beginners.

BY J. A. GOLDEN.

I have many letters of inquiry in regard to the wintering features of my combined feeder and hive cover, from the various States, and I am frequently asked to give information on several items in apiculture by letter, which I gladly respond to in short sketches, referring the questioners to text-books and Dr. Miller's department—Questions and Answers. But here lies a letter before me which says:

"I have bought several colonies of bees in box-hives, and I want to transfer them into movable-frame hives. Will you please tell me the best time, and how to do it? I take the American Bee Journal now, but it doesn't tell much about it."

I will give my plan and practices, hoping that it may meet the wants of many new readers of the American Bee Journal.

Having chosen the kind and style of hive we wish, the next is the tools requisite, viz.: A good smoker, a long-blade honey-knife, $1\frac{1}{2}$ inches wide, square point, ground sharp; a board 2 feet long, 15 or 20 inches wide, dressed smooth, with saw-kerfs one inch apart across the board on one side; a ball of wrapping-yarn, and an old, thin-blade case-knife, square point, ground sharp; a small box with a hand-lampset inside, that the knife-blade can be quickly heated by holding over the flue; a nail-cutter and hatchet; a light, bottomless box, 10 or 12 inches square.

The best time to transfer combs and bees is, in my experience (and I have done quite a little at that branch of apiculture), in this latitude, from April 15 to May 1. At this time the combs are light and free of new honey, and brood-rearing is but fairly started, consequently the work is quickly accomplished, without the loss of brood and a dauby mess of wasting honey, as is the case when combs become filled with new honey, and brood-rearing is in an advanced stage.

I use a table or bench to work on, and with everything ready, I cut enough wrapping-cord in lengths to put one strand in each saw-kerf of the transfer-boards. With the smoker give two or three puffs of smoke at the entrance of the box or hive to be transferred, and then carry the hive to the transfer-table, turn it upside down, and by the time I cut the nails off the side to be taken off, and with the long-bladed knife cut the combs carefully from the side to be removed, the bees will have filled themselves with honey. I set the bottomless box on top of the hive, and with the smoker smoke is applied at the bottom, and the queen and bees hastily scamper up into the bottomless box, which may be fastened in its place or set to one side.

Now, the long knife pushed end-wise under the bottom of the combs, severs them, and they can be lifted out, placing them on the board, and the edges straightened and squeezed close together. A frame is placed over the combs, pressing the top-bar against the top or thick edge, and with the left hand press the frame down on the combs; with the right hand heat the case-knife over the lamp, and cut clear round

the ends and bottom on the inside of the frame, holding the knife so as to cut a little under the frame. Slip out the cuttings, and press the frame down over the comb, draw the frame to the edge of the board, bring over a string and tie it; by turning the point around twice in tying the first knot, it won't slip. Some frames will require four or five strings, three usually. Clip off the points of strings, pull the frame from the board, at the same time raise it up and see that all is straight before placing in the hive close by.

Thus proceed, placing the honey part of the combs at the top of the frames, and the brood below, being careful to save all the brood; also putting the brood in as compact form as possible in the middle combs. If there are not combs enough to fill the frames desired, take strips of comb one inch wide, lay against the top-bar, heat the case-knife quite hot, and slide between the top-bar and strip of comb, then with the hot knife cut the strip to an edge, and the bees will do the rest.

After placing the hive on its stand, and the frames properly placed, raise the front of the hive one-half inch by a wedge or block, then dump the bees down at the entrance, and see that the queen goes in and not under the hive. Don't use smoke to drive the bees in—it's bad policy; use a small broom.

When all the bees are in, let the hive down, and close the entrance to two or three inches for a day or two. In two or three days uncover, and with a sharp knife cut the strings and slowly pull them from the combs, and the transfer is complete. Thus, one can transfer very speedily, and do it nicely.

Yes, we often wonder why the bee-papers don't give the transfer formula once a year—say in the January issue—knowing that new bee-keepers are yearly added to their readers.

Reinersville, Ohio.

[As no one should think of starting in bee-keeping without one of the standard bee-books (which give full directions for transferring), it is hardly necessary to repeat the same things every year in the bee-papers. There is quite enough repetition, we think, without publishing over and over what is so clearly told in the books, and upon which there is now scarcely any difference of opinion.—EDITOR.]

CONVENTION PROCEEDINGS

Report of the Michigan State Convention.

BY W. Z. HUTCHINSON.

(Continued from page 343.)

Mr. Aspinwall then read a paper entitled,

The Requisites for Success in Bee-Keeping.

With the advancement of civilization various individual and local enterprises have, at times, been seriously hampered. The condition thus produced has in turn been a stimulus to further progress, and overcoming difficulties which were scarcely apparent at times when success was attainable in the hands of the unskilled. The plow and lumberman's axe have greatly affected the interests of bee-culture. Climatic changes have also tended to intensify the situation. However, Nature is very compensating, and men, whose trust is in the Divine, will see developments that can be attributed to her workings.

Necessity is a great stimulus to progress. Many of the old and abandoned gold-mines are again being worked by improved methods, yielding a profit fully equal to the first work-

ings. I might cite numerous illustrations of similar progress. I very well recollect when bee-keeping was not a profitable pursuit, although the sources of honey were abundant, and not until Mr. Quinby gave his system to the public was it otherwise; and with the advent of the Langstroth frame came still greater profits, attended with a wonderful degree of progress.

Notwithstanding the loss sustained by drainage of marsh lands, and clearing of the forests of basswood, also the production of crops which yield no honey, we have forage from shade-trees, fruit-bloom, the clovers, buckwheat, etc., in lieu of the primitive sources.

With changed conditions bee-keeping in many portions of the country has ceased to be a paying pursuit. Bee-paralysis has also tended to reduce the profits in many localities. Dry seasons have proved an equivalent to overstocking, resulting in the storage of much poor honey, which is unfavorable to successful wintering. These discouragements, intensified by a lack of control in swarming, tend to make the profits still less.

With these conditions relative to bee-keeping, what shall be the remedy? What will enable the bee-keeper to obtain a reasonable profit when the seasons are unfavorable? It requires no great skill to secure a crop of honey where the forage is abundant, with weather favorable to the secretion of nectar. I have met men who, with favorable seasons and good yields of honey, flattered themselves that they were bee-keepers, when really the bees were their keepers. He only is a bee-keeper who can secure surplus under unfavorable circumstances. To accomplish this, several requisites are necessary.

First, we should possess a thorough knowledge of bee-keeping to its latest developments. The bee-keeper should also possess a natural adaptability to the profession. Presuming the knowledge has been acquired, there still remains certain requisites not contained in the volumes of the bee-keeper's library. The numerous experiences of the past five years are sufficient evidence in support of such a statement. How few in Michigan have been able to show a balance in favor of bee-keeping. However, these seasons and conditions, already mentioned, have served as a school of necessity. Never was there known such an effort to lessen manipulation as of late; never so much experimenting to prevent swarming, and never so great a desire to winter bees successfully with inferior stores.

Let us consider some of the requisites for success in bee-keeping:

- 1st. A thorough knowledge of the up-to-date methods.
- 2nd. An easy and successful method of wintering.
- 3rd. Management with less than half the present manipulation.
- 4th. Complete control and prevention of swarming.
- 5th. A thorough and complete remedy for all diseases. I refer especially to foul brood and bee-paralysis.
- 6th. And lastly, we should include a good feeder.

In considering the method of wintering I will simply refer to it as a necessity. It is not within the scope of this article to treat the subject. I will merely allude to a statement made by Mr. Quinby, in which he said that "colonies well wintered were the only ones from which surplus could be expected."

The third requisite—requiring less manipulation—is contingent upon the methods employed throughout the year, wintering included, which must be simple and easy in management. It certainly should include a non-swarming system or hive. Every bee-keeper knows something of the labor and annoyance during the swarming season. This must be done away with, if possible, and comb honey produced exclusively. But an objection may be raised. Unless some extracted is obtained, we fail to realize the maximum profit

from our bees. This objection will hold good if manipulation is not taken into consideration.

I have come to believe that bee-culture must be so managed that, if desirable, it may be followed by a side-issue, or in connection with another occupation. With lessened manipulation, which implies no swarming or extracting of honey, larger holdings will be possible, also greater assurance of success. It is unnecessary for me to state that comb honey does, and always will, occupy a higher place than extracted, which, if secured at less expense, is a point gained.

Lessened manipulation in itself calls for a non-swarmers.

The demands of the times call for an advance in these lines, and they must and will be forthcoming.

In alluding to non-swarmers—the fourth requisite—I will state for the benefit of all concerned, that I have no small degree of confidence in their ultimate success. Two seasons of experiment upon a large scale demonstrated that but one colony in 20 non-swarming hives cast swarms, while all without the attachments swarmed. The non-swarmers gave a surplus, while the swarmers were almost destitute of stores. This season's experiments will be more complete, having gained by the experience of the past two years.

The fifth calls for a positive remedy for foul brood and bee-paralysis. The former is sufficiently understood by intelligent bee-keepers to be thoroughly under control, although it is liable to spread through carelessness and ignorance. As regards bee-paralysis, but little is understood as yet. Certainly the disease is such as to seriously affect the yield of honey.

The sixth requisite is a good feeder, without which the preparation for successful wintering cannot be accomplished. The use of comb foundation in the sections as a bait, together with the tiering system leaves the brood-nest depleted in stores at the close of the season. I am speaking relative to the unfavorable conditions already mentioned, hence the great necessity of feeding. To prepare for extreme winters, each colony should contain not less than 40 pounds of food.

L. A. ASPINWALL.

W. Z. Hutchinson—Bees don't need so much honey for the winter as the amount mentioned by Mr. Aspinwall, but they may use it in the spring.

M. H. Hunt—Mr. Aspinwall's paper is something to set inventors to thinking.

Mr. Aspinwall—Yes, that was what it was intended to do, and what I have set forth in that paper is what we must come to.

W. Z. Hutchinson—There is no question but what a safe method of wintering and a remedy for swarming would work almost a revolution in bee-keeping, as a man could scatter his apiaries about the country, and care for them with but little labor, and the result would be the production of honey at less expense.

Mr. Aspinwall—Out of 20 colonies in my non-swarming hive, only one swarmed, and all gave a fair surplus, while those in ordinary hives swarmed, and stored no surplus, and had to be fed in the fall.

The Secretary now read a paper from Mr. T. F. Bingham, entitled,

Horizontal Prices.

The only real satisfaction to be gained by a careful survey of our industry, is that bee-keeping, like other industries, is suffering from restricted consumption—in common phrase, "over-production."

We read that over-production is impossible. This may be true, and to prove that this belief is reasonable, we are told that the last five years have been light in the amount of honey produced. Yet this supposed short crop has not only held at former prices, but actually fallen in price. This is used as

evidence corroborative, that the production of honey, unlike other produce, is not subject to the laws that govern supply and demand.

Some have claimed that because the production of honey was not entirely in the hands of so-called specialists, the markets have been demoralized by small producers, who have sold their product for what they could get, regardless of the large producers.

Much has been written about honey exchanges and unions as a means to better prices. While many bee-keepers are loud on the various trusts and combines in other vocations, combines for the same purpose—namely, to secure better profits, and freeze out small producers—no slur is ever cast on any legal means of doing the same thing in the honey industry.

The honey industry, while in many respects governed by the immediate local conditions, is widely diffused, and therefore in a broad sense independent, comparatively, of other than general and widespread results. Like the production of eggs and butter, there does not at present appear any method of producing honey so cheaply and surely as when produced by those same small, widely-distributed methods.

We read of the financial results of immense crops of honey produced in localities where people prefer sour fruits to cheap honey, even; of no home market, and combines, etc. What does it all mean? Simply this, that honey, like other articles of food, is governed by the laws of demand and supply.

Should the time ever come (and it is striding that way, when a few colonies of bees will be kept by all classes of people, as hens and cats are now kept—not because there is much money in them, but because they pay as well in money and comfort as anything else on a small scale and in a limited way), the consumption of honey will be greatly increased as its price is reduced, and its supply augmented.

It is not necessary that specialists should be consulted. They have told over and over, and put it in different shapes in different books, till they have no more to offer; in fact, we have had efforts made to increase competition, and reduce the price of honey and books by petitioning the much-abused paternalism of the Government for aid in the free distribution of a very worthy and excellent manual of the apiahy prepared under the auspices of the Department of Agriculture. Such petitions do not favor combines and honey exchanges. The laws of nature—vanity or interest—stand ever ready to teach school for a consideration. It may be a bee-convention, a Sunday school, a missionary meeting, or Salvation Army.

It is safe to say that until the arrival of the age of miracles it will pay in direct, or indirect, ways to produce honey and eggs and butter at rates at which they will be consumed.

T. F. BINGHAM.

W. Z. Hutchinson—I fear that Mr. Bingham forgets that honey is a luxury, and the price does not respond to the law of supply and demand as it does in the case of staples. People will pay \$1.00 a bushel for potatoes rather than do without them, but as soon as the price of honey begins to go up, its use is dropped by many.

Next came a paper by Dr. L. C. Whiting, of Saginaw, entitled:

Bee-Keepers Must Follow the Wild Flowers.

The failure in the crop of honey produced in any part of the country where the fields are all cultivated, must be met by emigration to pastures new, where the plow cannot disturb the wild flowers.

When the timber has just been cleared from the land, flowers spring up in variety and abundance. The ashes of the clearing are hardly cooled before fireweed, boneset and asters make their appearance. Raspberries and blackberries soon follow, and many other honey-producing plants cover the land. The forest, if at hand, furnishes another abundant

source of honey. White clover soon comes in, and the bees and bee-keepers are happy in the abundance of the stores. Should the land be so broken and rough that it cannot be cultivated, this condition of affairs may last many years.

As soon as the farmer puts his plow into the field, a large portion of these blooms disappear, and little remains except fruit-blossoms and white clover. The lumberman soon clears the basswood from the forest, and the bee-keeper wonders what is the matter with the honey season. What are we going to do about it? Sit down and see our bees die out, or seek more favorable locations?

This condition is facing many bee-keepers in Michigan to-day. Some of our prominent honey-producers have already taken this step, and are following the honey-flow into the new clearings, and success has proved the wisdom of their course.

There are many locations in the northern and western parts of the State which furnish the right conditions for profitable bee-keeping, to suit the most capricious bee-keeper.

Keep up your courage and follow the advice of Horace Greeley, and—"Go west." L. C. WHITING.

R. L. Taylor—How about Ohio, Indiana, Pennsylvania, Illinois and New York? These are old, cleared-up States, and have been for years, yet they have had good crops of honey since they were cleared and cultivated.

Mr. Hunt—In my locality we had good crops of honey for 11 years in succession. Then there was a change. It was abrupt. The floral conditions are the same in my locality now that they were in those 11 years of plenty.

Mr. Taylor—What we need is rain.

Mr. Aspinwall—You are right; and I believe that we will, in a measure, have an old-fashioned season this coming summer. There was more rain and snow the past winter than we have had in some time.

W. Z. Hutchinson was appointed to look after the matter of conferring with the State Board of Agriculture regarding the continuance of the Apicultural Experiment Station.

Officers were elected as follows: President, L. A. Aspinwall, of Jackson; Vice-President, Geo. E. Hilton, of Fremont; Secretary, W. Z. Hutchinson, of Flint; and Treasurer, M. H. Hunt, of Bell Branch.

The place for holding the next meeting was not definitely decided upon, it being left with the officers, but the talk was in favor of going more towards the northern part of the State. No meeting has been held very far north, and in that part of the State honey crops have been good the past year or two, and a larger attendance may be secured by going to a portion of the State where the bee-keepers have not had so many opportunities for attending a convention. Mt. Pleasant was mentioned as the probable place for holding the meeting.

W. Z. HUTCHINSON, Sec.

"Samantha at the World's Fair."—We want to make our present readers one of the best offers ever made. All know the excellent books written by "Samantha, Josiah Allen's Wife." Well, "Samantha at the World's Fair" is probably her best, and we are enabled to offer *this book and a year's subscription to the New York "Voice"* (the greatest \$1.00 weekly temperance paper published to-day), for sending us *only three new subscribers to the American Bee Journal* (with \$3.00), provided you are *not now* a subscriber to the "Voice." Think of it—a grand book and a grand weekly temperance newspaper *given simply for sending us three new subscribers to the Bee Journal for a year!* The Samantha book is exactly the same as the \$2.50 one, only the binding is of heavy manilla instead of cloth. It is a special 100,000-copy edition, and when they are all gone, the offer will be withdrawn by the publishers. Of course, no premium will also be given to the new subscribers—*simply the American Bee Journal for one year.*

Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

(Questions may be mailed to the Bee Journal, or to Dr. Miller direct.)

Milkweed Pollen-Masses on the Feet of Bees.

I send two black bees for examination. Their feet are covered with a yellow, fuzz-like hair. It is something new to me.

G. F. Y.

Central City, Ill.

ANSWER.—If you will look closely you will see that the little bodies attached to the bees' feet are hardly fuzzy or hairy, but more like flat, solid affairs. They are pollen-masses from milkweed, and are each year the cause of a good deal of alarm to those unacquainted with them. Looking something like a diseased growth on the foot, it is no wonder anxiety may be felt lest similar growths take place on the feet of all the bees. It is unusually early in the season to be troubled with them, but this year doesn't seem to follow rules. You will find some of the bees so loaded with these pollen-masses as to lose the use of their feet, and to be driven out of the hives. As the milkweed is a good honey-plant, possibly the damage done to the bees is made up by the amount of nectar secured.

Bees Working Only in the Morning.

What is the matter with my bees? I have three strong colonies in a cool, shady place, and they work vigorously in the morning, but cluster on the front of the hive in the evening. I have had the supers on about three weeks, but they have not started any surplus yet. I first thought they were "fixing to swarm," but they have had time to rear a queen since they began to cluster. I also thought the honey-flow was coming to a close, as they killed out the drones, but they seem to have plenty to do in the morning. I live in a forest country, where we have wild grape-vines, raton and many others; also pine, oak, hickory, black walnut, sweet gum, etc.

Delroy, Tex.

J. T. E.

ANSWER.—It is nothing unusual at times for bees to work busily in the forepart of the day and then lie idle in the afternoon for lack of anything to do. Very likely that's the case with your bees. Many plants seem to get ready through the night to offer the bees a feast in the morning, and when that's used up the bees know enough to stay at home. Even if nectar flows all day, if the number of flowers is very small, the bees may have nothing to do after the morning hours.

Actions of Wild Bees—Balled Queen, Etc.

1. What makes wild bees, after their tree is cut down, drink at their watering place stronger than they did before they were cut down, and the honey taken from them? Is it the overdose of honey they had eaten, or not?

2. What makes wild bees, after the tree is cut, work to the bait where they were first coursed from, and the honey all around where the tree was bursted? It seems that they were somewhat greedy.

3. On May 3 one colony of my bees swarmed. On May 4 I opened the old hive to pick out my choice in color of queens, and killed the rest of them. As my bees are very much mixed up, I want the best. Some of the cells were not open, and I opened three of them; to my surprise the queen was poking her tongue out. I helped her to get the door open, and saw a worker in the cell with her. The worker was turned head to tail with the queen, was dead, and appeared dry. I closed the cell-door, and thought that I would kill the queen and

send it to you. This may be very common, but not to me. Do you think when the cell was near being capped, the worker went in to see to the young queen, and some of the workers capped the cell? If not, how was it?

4. The other day I clipped one of my best, and put her back, and they balled her and killed her. I clip all of my queens, and this is the first to have been hurt when put back. I do not know why they did it.

G. W. B.

ANSWERS.—1. I don't know.

2. It seems certainly that they would be foolish to go off a long distance when honey is so near at hand, and I suppose most of them do work on the honey at hand, but the ones that have been working on the bait may start where they already know there is honey without noticing there is some nearer.

3. When several young queens are in a hive and the bees intend to swarm again, it is the common thing for all but one to remain in the cell, although the capping may be put nearly around. You will often see the young queens stick out their tongues to be fed by the workers, and sometimes a queen will push her head out and dodge back. Again, you will see the queen try to get out and the bees drive her back. A worker-bee might enter a cell after the queen had gnawed the capping open, and the other workers might keep her there till she died.

4. In rare instances a queen will be balled on being returned, but if you close the hive at once and leave them, the bees will usually release the queen.

Sprayed Trees May Have Caused It.

I had four colonies of bees that died. They had plenty of honey to eat, and there were no moths, and no foul brood. I would like to know what was the matter. They died the first of May. They had been working nicely.

Morocco, Ind.

G. E. L.

ANSWER.—I don't know. Possibly a case of poisoning. Fruit-bloom may have been visited by them about that time, and some one may have been so unwise as to have sprayed his fruit-trees with poisonous chemicals. If so, it was no doubt a case of ignorance, for spraying fruit-trees when in bloom is a damage to the trees, and can do no possible good.

Only One Cent a Copy for copies of the American Bee Journal before April 1, 1896. We have them running back for about 10 years. But you must let us select them, as we cannot furnish them in regular order, and probably not any particular copies. Just send us as many one-cent stamps as you may want old copies, and we will mail them to you.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 15 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

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EDITORIAL COMMENT

Many Disappointments will have to be endured the next few weeks by those who failed to order their supplies in time to have them on hand when needed. Probably some honey will be lost on account of it. Nearly all dealers will likely be very busy for some time yet, and do the best they can, they just cannot fill all orders promptly. So be patient with them, for in all probability the blame is yours for not ordering earlier, or before the great rush that we have known at this time of the year to almost overwhelm some dealers in years gone by.

Removing Honey-Boards.—In a recent number of the Bee Journal, Dr. Miller asked Mr. Hutchinson to explain a point mentioned in one of his recent articles in this paper. In reply, Mr. H. said in the last Review:

Dr. Miller wants me to explain how I can unite weak colonies with those that are stronger, if I do not take off the honey-boards oftener than once in three years, on the average. As a rule, not more than one-fourth of my colonies each year need such treatment. To be honest, I don't believe very much in the uniting of colonies of bees at any time. Much depends, however, on circumstances, and what we wish to accomplish.

The Medals and Diplomas awarded at the World's Fair, in 1893, we understand have been finally presented to those who were so fortunate as to win them. Mr. W. C. Lyman, of Downer's Grove, Ill., wrote us on May 25, that he had received his medal and diploma, and that "they are beauties." We presume others have theirs. We hope our Canadian friends are now happy, for only recently they were casting reflections upon the United States for being so slow about issuing the awarded signs of honors. Being "slow" can be forgiven, if one is only "sure." And 'tis said, "All things come to him who waits."

The Fifth Year of the present management of the American Bee Journal is begun with this number. Four years' work is completed. We have tried to make advancement in the contents and general make-up of the Bee Journal, from time to time, and sometimes we think that we have succeeded, at least in a small degree.

We wish to take this opportunity to return sincere thanks

to the many who have encouraged us in our work by prompt payment of subscription, kind words, and various other ways. We hope always to merit them, and shall endeavor in the future, as in the past, to do the very best we can for our readers.

Judging from general reports as to the prospects for a good honey season this year, we feel that better days are in store for bee-keepers. We shall be glad to rejoice with them, if after so many years of failure in various localities this year shall prove to be a good one. Let all strive to make the very best of whatever comes, and then if success is not attained the fault will not be at their door.

State Appropriations for Bee-Keeping is asked about in the "Question-Box" department this week. The answers are varied and interesting. They show but very little agreement in the minds of leading bee-keepers as to just what is the most needed aid for apiculture by the State.

We had thought for some time that experiment stations would be the best investment for the State to make, but recently we have come to the conclusion that there are other lines that need and deserve help most.

The suggestion that it be used in distributing tracts and pamphlets telling about the many valuable and interesting uses of honey is a good one. This would aid all. It would help create a larger demand for honey. It seems to us that just now bee-keepers know pretty well how to produce the honey—and the next thing is to be able to get some cash out of it. While there is considerable fun in keeping bees, still most folks don't live entirely on fun. There must be some real financial profit connected with it, or it will likely soon be dropped.

The idea of using a State appropriation in circulating bee-papers of course would at least appeal to publishers, and that would indeed help bee-keepers themselves. But for the best all-around help, we believe it would better be invested in literature that will educate the general public as to the uses of pure honey, and thus finally aid in overthrowing all kinds of glucose mixtures which so compete with the real bees' honey.

Apicultural Experiments.—The 21st Annual Report of the Ontario Agricultural College, located at Guelph, Ontario, Can., has been received. But the part that particularly interests bee-keepers is the report of the apiculturist, Mr. R. F. Holtermann, covering an interesting series of experiments. Not having space to go over this report in detail, I shall have to go over most subjects briefly.

FEEDING THE BEES.

A number of colonies were fed sugar syrup, with the Boardman entrance-feeder, and the feed was given a little above blood heat. The results are tabulated, and the experimenter observes that "there is a considerable difference between the first weight of the hive, plus the syrup, and the actual weight six days after the last syrup was stored. The difference in weight may be attributed to evaporation, the consumption of stores which goes on all the time under natural conditions, and the increased consumption likely to go on whenever the bees are under the excitement or stimulus of storing."

The conclusion is thus stated:

1. That there is a greater difference between the weight of stores supplied to the bees in the feeders, and the increase in the weight of the hive. There is a loss which cannot be explained in any satisfactory way.

2. That it will not pay to extract the honey with a view to making a profit, and supply the bees with sugar syrup for winter.

3. That, when feeding has to be resorted to, the strong colonies should be given sufficient comb and stores to cover

their own wants, and, in addition, supply the weaker colonies with combs of sealed stores.

SEALED COVERS OR UPWARD VENTILATION.

I haven't the space to go into details; but the experiment of wintering two sets of colonies of ten each in clamps showed that the set having sealed covers did not winter nearly as well

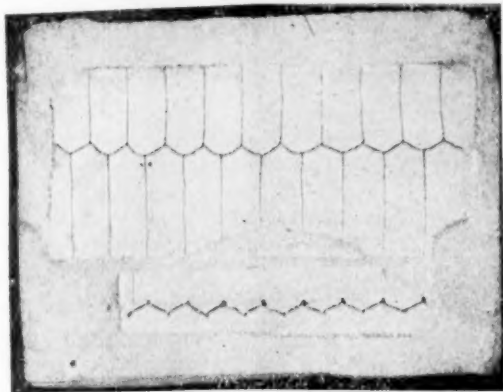


FIG. 1.—Giving a side view of comb foundation, 15 sq. ft. to the pound, and above the same after the comb has been completed and capped by the bees. The honey has been extracted and washed away from the comb, which, after a thorough drying, has been filled with plaster of Paris and a section cut down.

as those having upward ventilation. This agrees with the reports of two years ago.

COMB FOUNDATION.

Under this heading the experimenter gives some interesting results; and, so far as I know, he proceeds upon methods new and original. I can do no better than to quote nearly all he has to say on this subject:

The use of comb foundation has become general; in fact, few, if any, keeping bees in the movable-frame hive, attempt to do without it. At present, comb honey, owing to the quality of the comb foundation, is not generally of a kind satisfactory to the consumer. Although it is desirable to get a foundation which, when utilized and added to by the bees, gives a comb as thin as the natural one, many claim that comb a trifle heavier is not noticed by consumers. When, however, the base and bottoms of side walls are materially thickened, and the comb has an artificial appearance, and the wax does

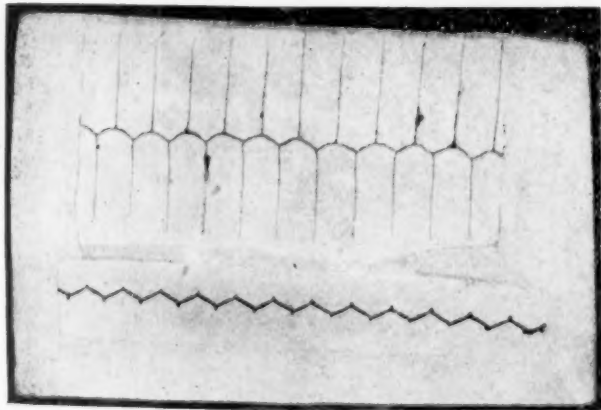


FIG. 2.—Giving a side view of comb foundation, 12 sq. ft. to the pound, and above the same after the comb has been completed and capped by the bees. The honey has been extracted and washed away from the comb, which, after a thorough drying, has been filled with plaster of Paris, and a section cut down.

not crumble when the comb is broken, the result is that the consumer objects, and the objection is intensified by the comparatively harmless nature of the change. Again, comb foundation and wax was wasted in the extra thickness; and this is no small item, as it is generally worth 50 or 60 cents per pound.

In our experiments, observations were taken along various lines—first, as to what extent, if any, the bees thin the base and side wall of the various thicknesses and kinds of comb foundation. Measurements were made, whenever possible, of the weight of foundation compared with the number of square feet, and the thickness of the base of foundation. Measurements were taken of the comb at the base, the side wall close to the hive, and half an inch up the side wall. The

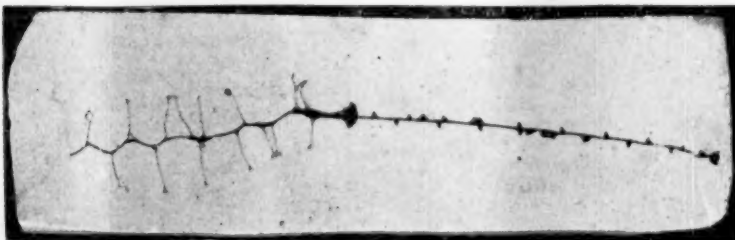


FIG. 3.—Giving a side view of comb foundation, flat-bottomed, 12 sq. ft. to the pound. This shows a continuous piece of foundation. One half of the foundation was covered over, the other half exposed and worked out by the bees.

comb was put on ice to harden it for the purpose of more accurate measurement; and three measurements were taken in this case.

Again, to see just how the bees utilized the comb foundation, three tanks of melted wax were prepared. One was colored with a preparation of alkanet, another with a preparation of carbon, and the third was pure beeswax, uncolored. The various stages in the manufacture of comb foundation were carried out, giving comb foundation from each tank 10, 12, and 15 feet square to the pound.

These were placed side by side, and drawn out in the upper stories by the bees. It was manifested in various ways that the bees objected to the alkanet, so this kind was discarded. To the foundation, colored black with the preparation of carbon, the bees did not object. The object in placing foundation made of ordinary wax alongside of the colored, was to make measurements of each kind when drawn out by the bees. The measurements of the colored and uncolored being identical, gave us a basis for the statement that the bees did not object to this preparation; and the method of drawing this out was

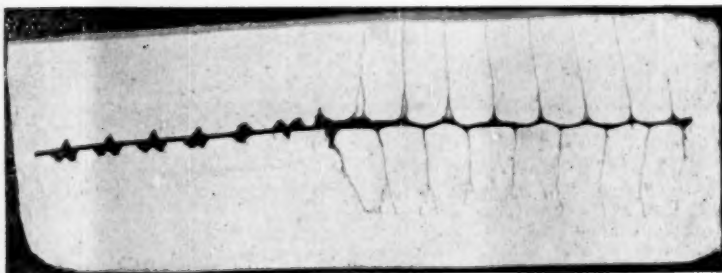


FIG. 4.—Giving a side view of comb foundation, flat-bottomed, 4 sq. ft. to the pound. This shows a continuous piece of foundation. One half of the foundation was covered over, the other half exposed and worked out by the bees.

identical with that of ordinary foundation. The base and lower part of the comb were not, as we might expect, of a black color, and the fresh and added wax white. Instead, there is a regular graduation from black at the base to white at the top of the cell. The heavier the foundation, the darker the base and adjoining side wall.

From the above it would appear reasonable to expect that

the bees kept adding scales of newly secreted wax and then pulling the side wall, thus decreasing gradually the percentage of colored wax. We also conclude that the quality of wax used in the foundation has an influence, not only on the base, but, to a certain extent, in almost the entire wall of the cell. The heavier the foundation, the greater the influence on the side wall. Again, notes were taken daily when the bees were beginning to draw the foundation; and although the heavier foundation was scattered about in various parts of the upper stories, they gave the preference to the heavier foundation, working on it first. Great caution must, of course, be observed in coming to conclusions. The bees, if the heavier foundation had been taken away, might have been almost as willing to go to work at once upon the lighter grade. At present no way appears open for conducting a satisfactory experiment to prove anything in this direction. The measurements taken at the base of the wall, and half an inch from the base, all tend to show that the wall is thicker at the base, and tapers, becoming thinner at the mouth. So far as I am aware, no one has ever made such measurements.

The "Vandeusen" is a flat-bottom (unnatural) foundation. The various specimens of this kind which were put into the sections were partially covered to prevent the bees from

touching the covered portion. The remainder was left to the bees. In every case the bees changed the base from flat-bottom to natural. I have adopted a new method.

EXPERIMENTS WITH FIVE-BANDED ITALIAN BEES.

This is summed up in the following deductions:

- 1st. They are below the average as to wintering qualities.
- 2nd. They are short-lived, probably because of a high-strung temperament.
- 3rd. They are prolific.
- 4th. They are gentle, unless when queenless.
- 5th. They are inclined to rob.

In conclusion, I might say that the Ontario Agricultural and Experimental Union also conducted co-operative experiments with these bees. Nine successful experiments were made, and, with the exception of one experiment, the above results were indorsed.

[The foregoing is taken from Gleanings. We, also, received the Report referred to, which in all is a volume of over 400 large pages, about 10 pages being devoted to the "Report of the Apiculturist," by Mr. Holtermann.—EDITOR.]

PERSONAL MENTION.

EVERY SUBSCRIBER is invited to send us anything that would be appropriate for this or any other department of the American Bee Journal.

MR. T. F. BINGHAM (of bee-smoker fame), Farwell, Mich., wrote us May 16, as follows: "We have the most delightful spring—just as nice as California." That's the general report.

MR. H. E. HILL, of Spruce Bluff, Fla., has been writing some interesting letters to the Aylmer Sun, of Ont., Canada, about his travels in Cuba and the southern part of North America. Mr. Hill is a bee-keeper and writes occasionally for the bee-papers.

MR. B. TAYLOR, in his article on page 355, tells how the slotted separators are made. Any one interested, can have a sample separator mailed him by sending to Mr. Taylor (addressing him at Forestville, Minn.) 15 cents in stamps to pay postage and packing. Having a sample you will then know just how to make them yourself.

MRS. L. C. AXTELL, of Roseville, Ill., wrote on May 23: "Bees have been for three or six days making a living from white clover, which now promises to give us a better crop of honey than we have had for several years. We have had several heavy rains the past week." White clover seems to be reviving in various localities. Hope it will keep on till "the old-time honey crops" are here again.

MRS. B. J. LIVINGSTON, of Martin Co., Minn., is one of the busiest women we ever heard of. Referring to her active life, she says:

"I have too many irons in the fire. Myself and grown-up daughter are doing the work for three families—our own home with hired help to cook for; two (youngest) children who keep a room in town and are attending the Fairmount High School; and a bachelor son who has a farm two miles away. Then we are raising and shipping fancy

poultry and eggs—mostly white Holland turkeys and Light Brahma chickens. We also have 30 colonies of bees and the post-office, with reporting for two weekly papers, and making garden—but I'll stop."

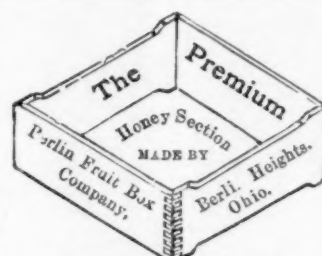
Now, if the foregoing isn't enough for a small regiment to attend to, then we are away off. Where is the man that would undertake to successfully manage all that business? And yet some pompous individuals delight in referring to woman as the "weaker sex!" Not much. We know better, for our own dear mother is one of the "Livingston kind." All honor to the toiling, loving and never-despairing women!

MRS. M. LOUISE THOMAS, of Philadelphia, at the last meeting of the American Institute Farmers' Club, delivered an address on bee-keeping, in which she is reported to have said she knew of "two women who have incomes of \$5,000 each, annually, selling queens." Of course we don't like to doubt Louise's word, but in plain language we can only say we don't believe it. At least we won't until we have some proof for it.

We did hear, some time ago, that there was a noted (?) bee-woman somewhere that sold 5,000 queens in one season, but since learning that in reality the husband was doing business in his wife's name, we have put only about one-fifth as much confidence (if not less) in the 5,000 report.

As Mrs. Thomas was reported in the Country Gentleman, we call upon the publishers of that excellent paper to request her to furnish proof of her statement about those two "incomes of \$5,000 each, annually." We want to help crown somebody—either as the queen of bee-women or the princess of prevaricators.

Bee-Keepers' Photograph.—We have now on hand a limited number of excellent photographs of prominent bee-keepers—a number of pictures on one card. The likeness of 49 of them are shown on one of the photographs, and 121 on the other. We will send them, postpaid, for 50 cents each, mailing from the 121 kind first; then after they are all gone, we will send the 49 kind. So those who order first will get the most "faces" for their money. Send orders to the Bee Journal office.



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45 10-frame Langstroth Hives, two-story, for extracting, as made and sold by T. G. Newman. These are empty—no frames—are well packed, and have been kept in the bee-house. Price, 75 cents each.

Also, 400 Brood or Extracting Combs for the above hives; they have the triangular top-bar as made by Newman. They are clean and in good condition. Price, \$15.00 per 100. I would take \$85.00 for the whole lot of Hives and Combs.

Reference—American Bee Journal.

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MUTH'S HONEY EXTRACTOR

PERFECTION Cold-Blast Smokers.

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For Circulars, apply to CHAS. F. MUTH & SON, Cor. Freeman & Central Aves., Cincinnati, O. Send 10c for Practical Hints to Bee-Keepers.

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Beautiful Golden Queens From Kan.

Let me tell you why my Golden Italians are better for comb honey than the 3-banders. Simply this—they cap their honey white like the blacks, and are splendid workers.

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|---|---------------|
| 1 Untested Queen, 75 cents or 3 for \$2.00 | |
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All orders filled promptly. Safe delivery guaranteed.

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Sent by Express, for \$1.50; or with the Bee Journal
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Every Manufacturer, Miller, Carpenter, Cabinet Maker, Machinist, Wheelwright and Quarryman, Farmer, or any one using a grindstone, should have one of these Tool-Holders. One boy can do the work of two persons, and grind much faster, easier and with perfect accuracy. Will hold any kind of tool, from the smallest chisel to a draw shave or ax. Extra attachment for sharpening scythe blades included in the above price. The work is done without wetting the hands or soiling the clothes, as the water flows from the operator. It can be attached to any size stone for hand or steam power, is always ready for use, nothing to get out of order, and is absolutely worth 100 times its cost.

No farm is well-equipped unless it has a Tool-Holder. Pays for itself in a short time.

How to Use the Holder.

DIRECTIONS.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard. While turning the crank with the right hand, the left rests on an steady the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding Round-Edge Tools, the holes in the standard are used instead of the notches.



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PATENT WIRED COMB FOUNDATION

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Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made

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Works Like a Charm.

The Monette Queen-Clipping Device WORKS LIKE A CHARM. With it I have clipped 30 queens, all in one day, when examining my bees. WM. STOLLEY, Grand Island, Nebr.

Couldn't Do Without It.

I have clipped 19 queens, and must say the Monette Queen-Clipping Device is by far the best invention ever made, and will be welcome to many bee-keepers as it was to me. I could not do without one now.

DR. GEO. LACKE, Newburgh, Ind.

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Send us just one new name for the American Bee Journal a year (with \$1.00), and we will mail you the Queen-Clipping Device FREE of charge. Or, the Queen-Clipping Device will be sent postpaid for 50 cts. But why not get it as a Premium by the above offer? You can't earn 50 cts. any easier. Almost every bee-keeper will want this Device. See page 130 (Feb. 27) for full description of it. Complete directions accompany each one sent out. It is a most ingenious and useful article. Address,

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

General Items.

A U. S. Bee-Association Urged.

The time is here when bee-keepers must organize so as to help themselves in every way possible. I very heartily approve of the plan given by Mr. W. F. Marks, on page 290, for organizing the "United States Association of Bee-keepers' Societies"—(rather a long name, but I think it very expressive). The plan is a good one, and it seems to me that it is one that could be carried out easily. I think, though, that the county and district societies should be subordinate to their respective State societies; the county and district societies appointing delegates to the State meetings, and the State meeting appointing one delegate to the United States meeting from each congressional district. Thus, the bee-keepers of the entire United States would be represented in a great convention of bee-keepers, and the entire brotherhood would gain respect, and their rights would be observed by all.

And also the various and separate States would be thoroughly organized, and proper and needed legislation could be more easily secured.

Last winter the Central Iowa Bee-keepers' Association appointed Mr. Jos. Nysewander, of Des Moines, and myself, as delegates to represent the bee-keepers' association, and present a petition before the Iowa legislature, asking that an experimental apiary be established at the Agricultural College at Ames, Iowa. The petition was presented, and all the assistance that could be given it was given, and I firmly believe that the reason the result was not more satisfactory was because of a lack of organization among the bee-keepers of the State. (I hope that this obstacle will be removed before another general assembly, and every bee-keeper in the State will be enlisted in the fight.)

This is a matter of great importance to every bee-keeper of the United States, and I believe that before we have gained all there is for us, we must take this step forward.

We are having abundance of rain, and everything is looking as if this would be a good honey-year. The bees all wintered well in this section, as a rule, last winter.

I hope bee-keepers will be encouraged enough to attend the bee-convention next fall at Marshalltown, Sept. 16 and 17. I will send further announcement later.

W. E. BRYAN.

New Sharon, Iowa, May 17.

Bee-Notes from Western Iowa.

Bees wintered well here last winter, for it was an extra open, mild winter. There are not as many bees as there were some years ago, on account of the recent drouthy seasons. Bees have been pretty poor property for the last three years, but it looks as if better days were dawning. We have had more than the average amount of rainfall since April first. We have just had (yesterday eve and to-day) the biggest rain we have had in a good many years. The past dry winter killed about one-half of the white clover, but the half that is left looks like the "better half," sure. If we escape frost, basswood may give us some honey again, and a wet spring

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12A13 Mention the American Bee Journal.

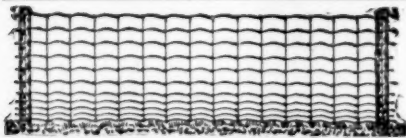
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We have killed high prices. Give me a trial order and be convinced that good Queens can be reared for 50 cts. each. Untested, 50 cts.; Tested, 75 cts. Golden Italians, 3-Banded Italians, and Silver-Gray Carniolans, all the same price. Best of References given.

C. B. BANKSTON,

13Atf CHRIESMAN, Burleson Co., TEX.

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REFERENCES REQUIRED.

Before hiring a man you want to know where and how well he has worked. Just so with fences. Plenty of careful, thrifty farmers have had ours in use eight or ten years. Can you do better than ask their opinion. Send for our monthly paper free.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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of refining wax without acid.

Result Better

Comb Foundation.

My prices are also the lowest.

A Job-Lot of No. 2

Polished Sections

Equal in finish to any No. 1's. 1 M. \$1.75; 2 M. \$3.40; 3 M. \$4.80; 5 M. \$7.50. Or I can furnish a cheaper quality. Also, a full line of

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See my List with prices.

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PACIFIC RURAL PRESS,

220 Market St., - SAN FRANCISCO, CAL.

TEXAS QUEENS.

If you are in need of Queens, let me have your order. Price-List Free.

8A26t J. D. GIVENS, Lisbon, Tex.

Mention the American Bee Journal.

ought to give us a good fall flow. So you see, with a few "ifs" and "ands," our prospects are quite fair for this year of grace, 1896.

Bees are running out of stores, and will probably need feeding before clover blooms. I suppose if we should get a crop we would have to give it away. There has not been any honey crop now for two or three years, and yet our home groceries sell comb honey for 12½ cents per pound. They call it "Colorado honey," and if it is not bogus, I wonder how much the man that produces it gets? I wouldn't think there would be much left after paying freight and commission.

I wish some reader in Colorado who knows, would let us know whether there is anybody in Colorado who can produce comb honey and ship it to Iowa, and retail it out for 12½ cents per pound. There was a neighbor of mine who has had bees a long time, who saw this honey, and who says it is "fed honey," or, in other words, sugar-honey, so-called. It seems to me this might be so, as I don't see why our Colorado brethren should sell their comb honey so cheap that it can be shipped this far, after being kept all winter, and sold cheaper than our own honey is sold, and that, too, when there is no other honey on our market. Of course, if they do it, and will persist in doing it, I have nothing further to say, but if this honey has sugar in it, I would like to find it out.

E. S. MILES.

Denison, Iowa, May 15.

A Report for 1895.

We started in with 39 colonies in the spring of 1895. We had 175 young colonies, besides some that we doubled up, and those we kept no trace of. We had 3,600 one-pound boxes, the rest being broken comb. We sold it for a shilling per pound. We put it in our last fall's report as extracted honey, but we did not extract any honey. We took up 30 colonies, and sold all we could, so we put 160 colonies into the cellar. When we took them out this spring there were three colonies dead, which left us 157 to start with. We have sold down, since we put the bees out, to 143, which we will keep this summer. If any one wants any proof, we would be pleased to have him write, and he will get it. J. Z. RHODES & SONS.

Verndale, Minn., May 13.

Interesting Nebraska Notes.

In place of crying for rain, Nebraska people just now are complaining of too much rain. All the rain we didn't get for the last two years appears to be coming down all at once. It has rained nearly every day this month, and farmers begin to wonder how they will finish their spring planting.

To bee-keepers, though, the abundant moisture means the growth of honey-plants, and perhaps honey. Bees have done well so far this spring. First came the bloom from soft maple, yielding enough honey to fill the hives in good condition for brood-rearing, which has been steady and well continued till the present time. The frequent rains for the last three weeks have prevented any vigorous honey-gathering, but as part of nearly every day the sun comes out, enough honey comes in for a living, and colonies are getting pretty crowded. The first swarm of the season came

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By PROF. A. J. COOK.

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting new subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

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The following offer is made to PRESENT subscribers only, and no premium is also given to the two new subscribers—simply the Bee Journal for one year:

Send us Two New Subscribers to the Bee Journal (with \$2.00), and we will mail you a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for \$1.25, or we club it with the Bee Journal for a year—both together for only \$1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO.,

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A Bargain—EARLY QUEENS.

119 Colonies Italian Bees in Chaff Hives: two acres land; good house; excellent well.

Early Queens—Tested, \$1.00; Untested, 50c. Sent by return mail.

E. L. CARRINGTON,

16Atf PETTUS, Bee Co., TEX.

Reference—1st National Bank of Beeville.

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Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and Everything used in the Bee-Industry.

I want the name and address of every Bee-Keeper in America. No reason why you cannot do business with me. I have Cheap Lumber and Experienced Workmen; a good Water-Power Factory and know how to run it. I am supplying Dealers as well as consumers. Why not you? Send for Catalogues, Quotations, etc. W. H. PUTNAM, JR.

RIVER FALLS, Pierce Co., WIS.

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Page & Lyon Mfg. Co.,

NEW LONDON, Wis., operates two saw-mills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of bee-keepers' supplies. They have also just completed one of

The Largest Factories,

and have the latest and most improved machinery for the manufacture of Bee-Hives, Sections, etc., that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the clearest and

The Whitest Basswood

is used, and they are polished on both sides. Nearness to pine and basswood forests, and possession of mills and factory equipped with best machinery, all combine to enable this firm to furnish the best goods at

The Lowest Prices.

For instance, it has a job lot of 200,000 No. 2 Sections that will be sold at 50 cts. per 1,000; or 2,000 Snow-White sections will be sold for \$4.00, and larger quantities at still lower prices. Send for Circular and see the prices on a full line of supplies.

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DO NOT ORDER UNTIL YOU HAVE
WRITTEN US FOR PRICES ON

The "Boss" One-Piece Section



Also D. T. Hives, Shipping-Crates
and Other Supplies.

We have completed a large addition to our
Factory, which doubles our floor room; we
are therefore in better shape than ever to fill
orders on short notice. Send for Price-List

J. FORNCROOK,

WATERTOWN, Jeff. Co., Wis., Jan. 1st, 1896.

Barnes' Foot-Power Machinery.



Free.
45Ct

Address, W. F. & JOHN BARNES,
No. 965 Ruby St., Rockford, Ill.

Read what J. I. PARENT, of
CHARLTON, N.Y., says:—"We
cut with one of your Com-
bined Machines, last winter
50 chaff hives with 7-in. cap,
100 honey-racks, 500 broad
frames, 2,000 honey-boxes
and a great deal of other
work. This winter we have
double the amount of bee-
hives, etc., to make and we
expect to do it with this saw.
It will do all you say it will.
Catalogue and Price-List

The RURAL CALIFORNIAN

Tells all about Bees in California.

The Yields and Price of Honey; the Pastur-
age and Nectar-Producing Plants; the Bee-
Ranches and how they are conducted. In fact
the entire field is fully covered by and expert
bee-man. Besides this, the paper also tells
you all about California Agriculture and
Horticulture. \$1.50 per Year; Six Months,
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Bee Supplies
Largest Stock
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Variety in the
West. BEST
Good-at Low-
EST prices. Cat.
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Sections & Foundation Reduced.

I am now selling Root's best polished SEC-
TIONS at \$2.50 per 1,000; 2,000 for \$4.50;
3,000, \$6.45; 5,000, \$10.00. The New Wood
Process Comb Foundation reduced 3c.
per pound. See prices on page 14 of our Cat-
alogue, or The A. I. Root Co.'s.

M. H. HUNT,

19D4t BELL BRANCH, MICH.
Mention the American Bee Journal.

New England Supply Depot!

You can get the most complete Bee-Hive,
also other Supplies, at—H. ALLEY'S,
Room 5, 82 Water St., - BOSTON, MASS.
13D4t Mention the American Bee Journal.

W. H. BRIGHT'S

CIRCULAR FOR 1896, describes everything
needed in the apiary. Bees, Queens, Hives,
Sections, Spraying Pumps, and Bright's Comb
Foundation, sold at bottom prices. Send for
one free.

Wm. H. BRIGHT,

17D4t MAZEPPA, MINN.

Full Colonies of Italian Bees for \$4.00.
For particulars see larger ad.
on page 350 of this paper. Tested Queens,
after June 10th, 75 cts. each; 2 for \$1.25. □
Address, T. H. KLOER,
426 Willow St., TERRE HAUTE, IND.
23A4t Mention the American Bee Journal.

May 18. I try, by changing hives, to
equalize the bees, and forming new colo-
nies to prevent swarming as much as I
can; still, they will swarm in spite of
me, once in awhile, especially those in
8-frame hives.

Our bees wintered in excellent condi-
tion on fall honey. We did not have to
feed any sugar, and they were appar-
ently as strong when brought out this
spring as when put into the cave last
fall. We have fed no sugar this spring,
but before flowers were plenty we sup-
plied them with artificial pollen, and
equalized the stores so that all had a
plenty.

During the breeding season, in early
spring, I disturb the interior of the hive
as little as possible, managing to do
most of the work without tearing the
brood-nest all to pieces.

When our hives are brought out of the
cellar they are placed in pairs on the
stands. A glance tells their condition
with regard to stores, and brood or eggs
indicates the presence of the queen.

When they get so full of bees they be-
gin to hang outside, and show symptoms
of swarming, I fill a hive with brood and
honey by taking one or two frames from
several hives that can spare them, put-
ting in empty combs or full sheets of
foundation in their places, move two of
the strong colonies from their stands to
a new place, and set the hive in the
middle of the stand where they stood.
They can be given a queen or cell
nearly ready to hatch, or be allowed to
rear a queen for themselves. Having
all the flying bees from the two hives
moved away, they are very strong in
bees, and ready for business right away;
while the colonies moved will not swarm
for awhile, and it disturbs them less
than to tear the hive all to pieces hunt-
ing for queen-cells, which is no pleasant
job at the best.

MRS. A. L. HALLENBECK.

Millard, Nebr., May 21.

One of the Old-Timers Expected.

Bees are just rolling in the honey here.
I look for one of those old-timers this
year. Prospects were never better.

A. CARDER.

Tracy City, Tenn., May 23.

Why Fumigate Honey?—Outlook.

While reading "Fumigation of Comb
Honey," by C. Davenport, on page 274,
the query arose in my mind, Why is it
necessary for him to fumigate his honey?
My experience in handling comb honey
is this:

When we first produced honey we used
a box extending across the hive with
glass in the ends and holes in the bottom
for the bees to enter; later, we used a
box composed of two-pound sections
nailed together, and glass in the ends.
When these boxes were removed from
the hive, and free from bees, paper was
pasted over the bottoms so nothing could
enter. We never were bothered with
moth-grubs in any honey kept in this
way, but one box; and on examining it,
found that there was a small hole broken
in the glass, and we inferred that the
moth entered through this and deposited
her eggs.

Since using the one-pound sections, as
soon as the cases are removed and free
from bees, they are piled one upon
another, leaving no aperture for moths,
ants or bees to enter, and the uppermost

✦ MONEY SAVED IS MONEY GAINED. ✦

THE ROYAL UNION Life Insurance Company

DES MOINES, IOWA.

The Iowa Policy

Is one that definitely promises to keep an
accurate account with you; credit your
premiums and interest, charge the actual
expense and mortuary cost, and hold the
remaining funds subject to your order; □
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The Patent Wood-Veneer Foundation.

Bee-keepers should give it a test, and my All-
Wax Foundation. I will guarantee there is no
better made, as six years ago I discarded the
old way of dipping for wax sheets, and a new
invention of my own was discovered, which
enables me to make the toughest kind of
Foundation; also, no acid used to purify the
Beeswax, and it preserves the smell of honey,
which is more acceptable to the bees. Now is
the time to send wax and have it worked
up at low prices. Send for Samples and Cata-
log with low prices. Wax wanted at 31c cash,
or 33c trade, delivered.

AUG. WEISS, Hortonville, Wis.
12A13t Please mention the Bee Journal.

1,000 Teachers' Oxford Bibles

Were bought for spot cash by a Chicago firm
from an Eastern publisher who was about to
be driven to the wall
for the want of ready
money. More than a
million of these same
Bibles, in every way
like the illustration,
have been sold during
the past few years at
three times the money
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They are the genu-
ine Teachers' Oxford
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cult, round corners,
gilt edges, complete
teachers' helps, maps,
1,350 pages, bound
in French seal, limp,
with perfectly flexible
backs. Sent prepaid.

Regular price, \$1.50; our price, \$2.25. Or
we club it with the Bee Journal for one year—
both for only \$2.75; or we will give this fine
Bible free as a premium to any one sending
4 new subscribers to the Bee Journal one
year (with \$1.00). No additional premium is
given the new subscribers—simply the Bee
Journal one year to each of them.

GEORGE W. YORK & CO.,

- CHICAGO, ILLS.

BEGINNERS.

Beginners should have a copy of the
Amateur Bee-keeper, a 70-page book by
Prof. J. W. Rouse. Price 25 cents; if
sent by mail, 28c. The little book and
the Progressive Bee-keeper (a live, pro-
gressive 28-page monthly journal) one
year, 65c. Address any first-class dealer,
or

LEAHY MFG. CO., Higginsville, Mo.

For Sale HOME, APIARY, —QUEENS.—

½ Block of ground, some fruit, GOOD 6-room
dwelling, shop, stable, honey-house and poul-
try-house (over 3,000 square feet of floor).
100 colonies of bees in chaff hives and fully
equipped for comb honey, all in town of 1000
population and good alfalfa range and good
water. Price, \$3,000. If unsold June 15th,
will unqueen, and offer 2 year clipped queens
at 25c.; 1 year, unclipped, at 50c. each. July
15th and after, young queens at 60c. each—
all Italian and safe arrival guaranteed. This
is a rare bargain, but I must get my wife to a
lower altitude. Book your orders at once if
you want these queens.

19A1f R. C. ATKIN, Loveland, Colo.
WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

one closely covered, and we have never found a moth-grub in a section yet, and we have never fumigated.

Where Italian bees are kept the moths have never an opportunity to deposit their eggs in the sections. Where Italian bees are kept, and an old hen with a lively brood have their freedom, the moths stand a poor show. I've been amused many a time by seeing an old hen giving a moth a lively chase, and catching him, too.

HIVES OF COMB.—In early spring, if we discover a hive with a dead colony we take out the combs, trim off queen-cells, and cut out undesirable comb, scrub the hive with hot soap-suds, rinse with boiling water, and as soon as it is dry, return the combs and store it in the cellar. It is a pleasure during swarming-time to bring up these hives without a grub in them.

OUTLOOK FOR HONEY.—In our experience in Illinois for half a century, we have never known so delightful a spring. The season up to April 5 appeared to be two weeks late, but since then vegetation has come forward on the double-quick; the leaves all made at once so new and fresh. There is the best prospect for white clover that there has been in five years, and sweet clover is very rank and abundant. May-day finds vegetation ahead of average seasons.

MRS. L. HARRISON.

Peoria, Ill., May 1.

The Charming Tune of Swarming-Time.

BY ED JOLLEY.

I seldom hear a dinner-bell
But thoughts arise like these—
Of how in yore it clattered
At the swarming of the bees.
We used to hear it often
In the months of May or June;
When the bees began their swarming,
Then we played our charming tune.

Grandma rang the dinner-bell,
Our aunt did beat a pan;
Brother Tom, he thumped the boiler,
While I hammered on a can.
When the swarm had all flown out,
And far around had spread,
"Just thump a little louder now,"
Our grandpa wisely said.

The way we beat that boiler, then,
"Twould make you smile to hear,
As the bees began to settle
On the lilac bushes near.
Then grandpa got the skep,
And with catnip rubbed it well,
So the bees would like their home
For its nice, perfumery smell.

When the work was all done up,
Did our grandpa smiling say:
"Twas by your lusty music, boys,
That you have saved the day!"
We smile to think it over now,
"Twas earnest business then
With grandpa, as well as us,
And nearly all the men.

But the work is different now—
The order's seen a change;
Things we used to think our duty
Are now thought very strange.
Yet I seldom hear a dinner-bell,
If the day is nice and warm,
But I seem to hear the boiler
And the tune that charmed the swarm.
Franklin, Pa.

Bee-Keeper's Guide—see page 364.

BINGHAM SMOKERS
Best on Earth
and Cheapest.
Doctor, 3 1/2-in. stove, by
mail, \$1.50; Conqueror,
3 in., \$1.10; Large, 2 1/2,
\$1; Plain, 2, 70c; Little
Wonder, 2, wt 10 oz., 60c
Bingham & Hetherington
Honey-Knives, 80 cents.
T. F. BINGHAM,
23D St. Farwell, Mich.

Honey-Clovers & Buckwheat SEED FOR SALE.

We have made arrangements so that we can furnish seed of several of the Clovers and Japanese Buckwheat, by freight or express, at the following prices, cash with order:

| | 5lb | 10lb | 25lb | 50lb |
|----------------|-------|--------|--------|--------|
| Alsike Clover | \$.70 | \$1.25 | \$3.00 | \$5.75 |
| Sweet Clover | .75 | 1.40 | 3.25 | 6.00 |
| White Clover | 1.25 | 2.00 | 4.50 | 8.00 |
| Alfalfa Clover | .65 | 1.10 | 2.70 | 5.00 |
| Crimson Clover | .55 | .90 | 2.00 | 3.50 |
| Jap. Buckwheat | .20 | .35 | .90 | 1.25 |

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.
Your orders are solicited.

GEORGE W. YORK & CO.,
CHICAGO, ILLS.

Sweet Clover & Canada.

At the following prices:

| 5 lbs. | 10 lbs. | 25 lbs. | 50 lbs. |
|--------|---------|---------|---------|
| \$1.00 | \$1.60 | \$3.75 | \$7.25. |

Also a quantity of Motherwort and Catnip seed. Prices on application.

EGGS for Hatching. Buff Leghorns, Indian Games, & Light Brahmas. Choice Birds. A breeder for 30 years. Prices on application

JOHN MCARTHUR,
881 Yonge Street, - TORONTO, ONT.
15A St. Mention the American Bee Journal.

Promptness Is What Counts!
Honey-Jars, Shipping-Cases, and everything that bee-keepers use. **Root's Goods at Root's Prices,** and the best shipping point in the country. Dealer in Honey and Beeswax. Catalogue Free.
Walter S. Ponder
162 Mass. Ave.
INDIANAPOLIS, IND.
Mention the American Bee Journal.

Queens for Sale

Italian Queens—after May 15—Untested, 75c. each; 6 for \$4.00; 12 for \$7.20.

Safe arrival and satisfaction guaranteed.

Reference—George W. York & Co. Address,

F. GRABBE,
LIBERTYVILLE, ILL.,

Mention the American Bee Journal.

HONEY We have a large amount of Pure No. 1 Alfalfa we will sell cheap.

Wax Wanted.

Boss bee-escape Warranted the best, simplest and quickest Escape on the market. Sent postpaid to any address for 30 cts. It can be returned at our expense if it is not as represented, or we will send the Escape on trial to any bee-keeper wishing to test it in good faith. We are agents for the **Ferguson Patent Hive** with double-case Super and Wicket-Gate Honey-Board, with the Escape. It is the easiest, quickest hive to handle for the production of comb honey. Address,
E. S. LOVESY & CO.,
355 6th East St., SALT LAKE CITY, UTAH.
Mention the American Bee Journal. 9A St

READERS Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

State Appropriation for Apian Uses.

Query 16.—What are the best uses to be made of a \$500 State appropriation for the benefit of the bee-keeping interest?—COLO.

C. H. Dibbern—I give it up.

Rev. M. Mahin—I give it up.

W. R. Graham—I don't know.

H. D. Cutting—Experimental purposes in certain lines.

Chas. Dadant & Son—Scatter publications over the country.

E. France—Use it for the prevention and cure of foul brood.

Eugene Secor—Get a law passed punishing adulteration, and use the money to enforce it.

W. G. Larrabee—Prevent adulteration, and help to distribute the seeds of honey-producing plants.

Dr. C. C. Miller—I don't know. Perhaps to help establish a big State society or an experimental station.

R. L. Taylor—Those interested and acquainted with the situation there should be able to answer that.

Emerson T. Abbott—That depends entirely upon circumstances. All money raised by taxation should be used in a way that will benefit the general public.

Prof. A. J. Cook—It is best to discourage any such appropriation. Such legislation for the very few is very questionable, and the more if in a questionable cause.

Dr. J. P. H. Brown—In my judgment, the very best use it could be put to would be the dissemination of tracts, booklets, etc., teaching the people the uses of honey.

J. E. Pond—That depends so much upon localities, that each State should answer for itself. For my own State, it would require too much space to attempt to answer here.

B. Taylor—Give premiums for the greatest yields of honey from at least 25 colonies, with the method of producing it. Divide the \$500 into 20 or more premiums.

J. M. Hambaugh—By publishing the proceedings, conventions and other matters, of public interest, and placing it in the hands of the members of the bee-keeping pursuit.

P. H. Elwood—Spend it showing up the unhealthfulness of commercial glucose as food. It is much more objectionable than oleomargarine, and the popular recognition of this fact would enable us to outlaw it.

Mrs. L. Harrison—Invest it in the seed of the different varieties of clover, and distribute it gratuitously to all parts of the State, to those who would be likely to be interested in forage plants. He that hath grass, hath meat, milk and honey.

James A. Stone—Publishing reports of the associations, or expend it in literature (bee-papers) to circulate among those who will interest themselves

No. 1 4x4 1/4 Snow-white Sections \$2.00 per 1,000.

For the purpose of introducing our One-Piece Section to the bee-keepers generally, we have concluded to make the price \$2.00 per 1,000 for the season. Now is the time to get your Sections cheap. We have a choice lot of Section Lumber, gotten out of young timber, and we can furnish you the nicest Section to be had. Write for Sample Section Free.

THE MARSHFIELD MFG. CO.,

June 1st, 1896.

MARSHFIELD, Wood Co., WIS.

enough to become members of the organizations that work in the interests of bee-keepers. Farther than this we think an appropriation useless.

G. W. Demaree—Leave it in the State treasury. Thousands of people of our times who have a dread horror of modern "Socialism," are willing to practice the modern doctrine in an exclusive way. Universality, or not at all, is simple honesty.

G. M. Doolittle—Use it for reform literature to agitate so that all bee-keepers may not come to a state of serfdom. The high-priced (gold) dollar costs three times as much of our product to buy as formerly, and bee-keepers are fast becoming a race of slaves.

Allen Pringle—If the appropriation is an annual grant, a thoroughly organized State association ought to take charge of and expend the money in the interests of bee-culture in that State—by promoting the organization and affiliation of local societies to itself, etc.

Queens and Queen-Rearing.

If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may safely introduce any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

Bound in cloth, postpaid, \$1.00; or clubbed with the BEE JOURNAL for one year—both for only \$1.75; or given free as a premium for sending us three new subscribers to the BEE JOURNAL for a year at \$1.00 each.

No. 1 Sections—Cheap.

We offer for a few weeks, a surplus stock of our one-piece No. 1 Cream Sections at the following very low prices:

1000 for \$1.50.

3000 for \$4.00.

5000 for \$6.00.

These Sections are finely finished and No. 1 in all respects save color, being, as their name indicates, of a cream color.

The stock consists of a quantity each of the following sizes:

4 1/4 x 2, open 2 sides 4 1/4 x 1 15-16, open 2 sides
4 1/4 x 1 7-8, open 2 sides
4 1/4 x 1 1/2, open 2 sides 4 1/4 x 7-to-ft., open 2 sides

G. B. LEWIS CO.

WATERTOWN, WIS.

Mention the American Bee Journal.

Honey & Beeswax Market Quotations.

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations, are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsolled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsolled; both wood and comb unsolled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

CHICAGO, ILL., May 19.—We quote: Fancy white, 14@15c.; No. 1, 12@13c.; fancy amber, 9@10c.; No. 1, 8@8 1/4c.; fancy dark, 8@9c.; No. 1, 8c. Extracted, white, 5@7c.; amber, 4@5c.

Beeswax, 28@30c. It continues to sell well and there is no accumulation of shipments. We consider it a good time to sell.

R. A. B. & Co.

PHILADELPHIA, PA., Apr. 22.—We quote: No. 1 white, 9@10c.; fancy amber, 8@9c.; fancy dark, 7@8c. Extracted, white clover, 10c.; amber, 5@5 1/4c.; dark, 4@4 1/4c. Beeswax, 25@26c. Comb honey is dull. Extracted in fair demand. Beeswax lower. W. A. S.

BUFFALO, N. Y., Apr. 20.—We quote: Fancy white, 15@16c.; No. 1 white, 13@14c.; fancy dark, 8@9c.; No. 1 dark, 7@7 1/4c. Beeswax, 25@28c. Trade very dull and honey not moving, except a few fancy lots; anything dark is hard to sell.

B. & Co.

CINCINNATI, O., Apr. 22.—There is no fancy white comb honey on our market. Best white sells at 12@14c. in a jobbing way, with a fair demand. Demand is good for extracted at 4@7c., according to quality.

Beeswax is in good demand at 25@30c. for good to choice yellow.

C. F. M. & S.

KANSAS CITY, MO., May 20.—We quote: No. 1 white, 13@14c.; No. 1 amber, 10@12c.; No. 1, dark, 8@10c. Extracted, white, 6c.; amber, 5c.; dark, 4c.

C. C. C. & Co.

NEW YORK, N. Y., May 9.—There is some demand for white comb honey at unchanged prices. No market for buckwheat. Extracted remains quiet. New Southern is now arriving and selling at 5@6c. for fine grades and 50@55c. a gallon for fair to common.

Beeswax easy at 28@29c.

H. B. & S.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

HILDRETH BROS. & SEGELKEN,
120 & 122 West Broadway.
CHAS. ISRAEL & BROS., 486 Canal St.

Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.



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How to Send Money.—Remit by Express, Post-Office Money Order, or Bank Draft on New York or Chicago. If none of these can be had, Register your Letter, affixing Stamps both for postage and registry, and take a receipt for it. Money sent thus, IS AT OUR RISK; otherwise it is not. Do not send Checks on Local Banks—we have to pay 25 cents each, to get them cashed.

Never Send Silver in letters. It will wear holes in the envelope, or may be stolen.

Money Orders.—Make all Money Orders payable at Chicago, Ill.—not at any sub-station of Chicago.

Postage Stamps of any denomination may be sent for any fraction of a dollar; or where Money Orders cannot be obtained, stamps for any amount may be sent.

Subscription Credits.—The receipt for money sent us will be given on the address-label of every paper. The subscription is paid to the end of the month indicated.

Do not Write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

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Emerson Binders, made especially for the American Bee Journal, are convenient for preserving each weekly Number, as fast as received. They will be sent, postpaid, for 75 cents, or clubbed with the American Bee Journal for one year—both together for \$1.60. They cannot be sent by mail to Canada.

WARRANTED GOLDEN

ITALIAN QUEENS By return mail; bred from a Breeder tested by Doolittle out of 1,000 Queens for his own use, and valued at \$50. Queens, 50c; 5 for \$2.75; or \$5.00 per dozen.

Leather Colored Queens from Root's best Imported stock same price. Bees from my Queens are excellent workers on red clover. I guarantee safe delivery. N. B.—I sent more than 200 Queens safely to California last season.

H. G. QUIRIN, Bellevue, Ohio.

23A16 Mention the American Bee Journal.

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GOOD GOODS KEEP IT.**

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THE W. T. FALCONER MFG. CO.,
JAMESTOWN, N. Y.
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COMB FOUNDATION!

Wax always wanted for Cash or in Exchange for Fdn. or other Supplies. My trade is established on **Low Prices** and the merit of my **Foundation. Orders filled promptly.** WORKING WAX INTO FDN. BY THE LB. A SPECIALTY. Wholesale prices to **dealers** and **large consumers.** Send for Prices and Samples to—**GUS DITTMER, AUGUSTA, WIS.** Reference—Augusta Bank. 1Atf

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14 Years' Experience in breeding Italian Queens. **GOOD** Untested Queens, 75c, 3 for \$2.00. **CHOICE** Tested, young, \$1 each by return mail. A. I. Root Co.'s Supplies kept in stock at bottom prices. 36-page Catalog free.
JNO. NEBEL & SON, High Hill, Mo.
Mention the American Bee Journal. 4A26t

I ARISE



TO SAY to the readers of the **BEE JOURNAL** that **DOOLITTLE**

has concluded to sell **BEES and QUEENS**—in their season, during 1896, at the following prices:

- One Colony of Italians on 9 Gallip frames, in light shipping-box \$6.00
- Five Colonies..... 25.00
- Ten Colonies..... 45.00
- 1 untested queen. 1.00
- 6 " queens 5.50
- 12 " " 10.00
- 1 tested Queen... \$1.50
- 3 " Queens. 3.50
- 1 select tested queen 2.00
- 3 " Queens 4.00

Select tested queen, previous season's rearing. 4.00
Extra Selected for breeding, THE VERY BEST.. 5.00
About a Pound of BEES in a Two-frame Nucleus, with any Queen, \$2.00 extra.

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Circular free, giving full particulars regarding the Bees and each class of Queens.
Address

G. M. DOOLITTLE,
12A25t **BORODINO, Onon. Co., N. Y.**
Mention the American Bee Journal.

BEES QUEENS
Smokers, Sections, Comb Foundation, And all Apian Supplies cheap. Send for FREE catalogue. **E. T. FLANAGAN, Belleville, Ill.**
6A26t Please mention the Bee Journal.

PURE BARRED PLYMOUTH ROCK

Eggs, \$1.25 per 14. Our P. Rocks are very large, with fine plumage. Also,

BLACK MINORCA EGGS,

a non-sitting and great laying breed. Both kinds raised upon our farm. Minorca Cock-erels, \$1.00 each. **Mrs. L. C. AXTELL,** 16Atf **ROSEVILLE, Warren Co., ILL.**
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19th
Year

Dadant's Foundation

19th
Year

Is still in the lead, for we use all the latest improvements, including the

NEW WEED PROCESS,

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John Rey, East Saginaw, Mich.
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C. F. Muth & Son, Cincinnati, Ohio.
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G. B. Lewis Co., Watertown, Wis.
James Reynolds Elevator Co., Poughkeepsie, N. Y.
Louisiana Bee-Keepers' Supply Manufactory, Donaldsonville, La.
Page & Lyon, New London, Wis.
John Nebel & Son, High Hill, Mo.

and many other Dealers. All agree in saying that no goods are better than ours.

Those of our customers who formerly bought through Thos. G. Newman can get our Foundation in **Chicago, Ill.**, by addressing us at **118 Michigan Street.** We keep no other goods there.

We make a specialty of **Veils and Veil-Stuffs** of best quality, cotton and silk.

"LANGSTROTH ON THE HONEY-BEE"—Revised.

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CHAS. DADANT & SON,

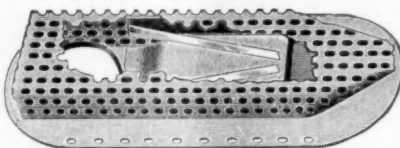
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For all the **good, pure yellow BEESWAX** delivered to our office till further notice, we will pay 26 cents per pound, cash; or 30 cents for whatever part is exchanged for the American Bee Journal, Books or Seed, that we offer. If you want **cash promptly** for wax, send it on at once. Dark or impure wax not taken at any price. Address plainly,

George W. York & Co., 118 Michigan St., Chicago, Ill.



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Cheap, strong, serviceable. We have sold a good many of these, and so far there has been no complaint; but, on the other hand, there have been scores of letters in their praise. Price, 85 cts. Prepaid, \$1.10.



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